

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety

Washington, D.C. 20594

April 22, 2010

Addendum 2 to Group Chairman's Factual Report

OPERATIONAL FACTORS

DCA10IA022

ACCIDENT

Operator: PSA Airlines, Inc.
Location: Yeager Airport, Charleston, West Virginia
Date: January 19, 2010
Time: 1623 eastern daylight time¹
Airplane: Bombardier CL-600-2B19, Registration Number: N246PS

Addendum 2 to Operational Factors group report

PSA Airlines Flight Release paperwork in part and ACARS weight message for PSA flight 2495:

¹ All times are eastern daylight time (edt) based on a 24-hour clock, unless otherwise noted. Actual time of accident is approximate, determined by the Air Traffic Control (ATC) transcripts.

FL2495/19 CRW - 246
FL2495/19 CRW - 246 ACFT

19 2013 8447B3 NO-AAA

-
RELEASE FLIGHT IFR 19JAN10
TAIL TYP FLT ORG DST TOA AL1 AL2 PAYLD/PAX/BAG T/OFUEL RAMP
246 RJ2 2495 CRW CLT 11761/050/077 4730 5600
AC REG
N246PS
SUBJECT TO THE FOLLOWING CONDITIONS

NONE
2055Z DISPR PAT PERDUE DIAL NET 454-5314

CAPT T MORROW CK 15179 F/O R SALTSGAVER 22378
F/A G TAYLOR 19554 F/A
C/F C/F

.....
DISPATCH RELEASE ACCEPTANCE

I ACKNOWLEDGE RECEIPT OF THIS RELEASE AND CERTIFY THAT I MEET
THE REQUIREMENTS OF F.A.R.121.439 THROUGH 121.445 AND HAVE
REVIEWED AND IN COMPLIANCE WITH DRS - PSACREW.

CAPTAINS SIGNATURE

PAX BOOKED 33

.....
FLIGHT DATE ORG DEST ALT1 ALT2 A/C TYPE ENGINES TAIL
2495 19JAN10 CRW CLT CL600-2B19 CF34-3 N246PS
OP INDEX -00006.9

SPEED SCHEDULES CLIMB 290/74 CRUISE ECON000 DESCENT 290/74
FUEL TIME PLAN ACT STRUC SKED /ACT
BURN 2077 00.48 BOW 31940.....LIMIT
RESERVE 2000 00.45 PYLD 7722..... OUT 2100...
ALT/MSAP 0 00.00 ZFW 39662..... 44000
HOLD 653 00.20 FOB 5376..... 14518 OFF.../...
T/OFUEL 4730 02.11 TOW 45038..... 53000
TANKER 646 00.20 BURN 2077 ON.../...
TAXI 224 00.14 LGW 42961..... 47000
RAMP 5600 FOD 3299 IN 2212...
COST INDEX 12

ROUTE R01 0260M WIND P006 ETE 00.48 TAXI IN 0010

.FPL-JIA495-IS
-CRJ2/M-SRWZ/S
-KCRW2100
-N0366F260 DCT HNV JOHNS2
-KCLT0048
-REG/N246PS NAV/RNVD1E2A1.
FLIGHT PLAN VALID FOR DEPARTURE UNTIL 2300 19JAN10

... A/C INFO ...
PLACARD....DESCRIPTION.....
NONE

FFL
2495/19/246/1600
--
-CRW CLT
RELEASE FLIGHT IFR 19JAN10
TAIL TYP FLT ORG DST TOA AL1 AL2 PAYLD/PAX/BAG T/OFUEL RAMP
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-REG/N246PS NAV/RNVD1E2A1.
FLIGHT PLAN VALID FOR DEPARTURE UNTIL 2300 19JAN10

... A/C INFO ...
PLACARD....DESCRIPTION.....
NONE

CKPT LAT LONG SEG SEG TTL ADBO
FREQ FL WIND TEMP MH MC DIST GS TIME TIME FRMG

KCRW 05376

TOC N37 19.6 W081 53.2 ... 04210
CL 26062 M36 207 208 064 CL 00.14 00.14 00332
HMV N36 26.2 W082 07.8 ... 03878
114.6 26 26062 M37 208 208 055 346 00.10 00.24 00164
GIBSS N35 59.7 W081 50.3 ... 03714
25 26057 M34 165 165 030 364 00.05 00.29 00066
SPWAY N35 49.1 W081 43.4 ... 03648
25 26057 M34 168 168 012 364 00.02 00.31 00078

SHINE N35 36.5 W081 35.2 ... 03570
 25 26057 M34 168 168 014 363 00.02 00.33 00026
 JOHNS N35 33.4 W081 30.4 ... 03545
 25 26057 M34 142 142 005 375 00.01 00.34 00051
 FOSSE N35 27.1 W081 20.9 ... 03493
 25 26057 M34 143 143 010 374 00.01 00.35 00045
 TOD N35 21.5 W081 12.6 ... 03448
 DC 26062 M34 144 144 009 DC 00.02 00.37 00019
 CEDOX N35 15.9 W081 04.4 ... 03429
 DC M32 142 142 009 DC 00.01 00.38 00023
 DOSBE N35 06.5 W081 03.5 ... 03405
 DC M31 190 190 009 DC 00.02 00.40 00025
 IKICO N34 56.1 W081 02.6 ... 03380
 DC M31 189 189 010 DC 00.02 00.42 00019
 PACOK N34 48.1 W081 01.9 ... 03360
 DC M31 188 188 008 DC 00.01 00.43 00061
 KCLT N35 12.8 W080 56.6 00.05 00.48 03299

ENROUTE SPOT WIND SUMMARY

	HIGHER	PLANNED	LOWER LEVELS	FL100
TO	FL WIND	FL WIND	FL WIND	FL WIND
KCRW	28 265059	26 265057	24 265056	22 266053 280033
HMV	27 263058	25 263057	23 263055	21 265052 279033
GIBSS	27 262058	25 262057	23 263055	21 264052 277033
SPWAY	27 262058	25 262057	23 262055	21 263052 276033
SHINE	27 262058	25 262057	23 262055	21 263053 276033
JOHNS	27 261058	25 261057	23 262055	21 263053 275032
FOSSE	27 261058	25 261056	23 262054	21 263053 274032
CEDOX	27 260058	25 261056	23 261054	21 262053 273032
DOSBE	27 260057	25 260055	23 261053	21 262052 272032
IKICO	27 260057	25 260055	23 261053	21 262052 272032

TAKEOFF AND LANDING REPORT JIA 2495 CRW-CLT 19JAN10
 TLR-1 SEQ-28017032 19JAN10 1849Z
 A/C 246 CL600-2B19 CF34-3B1

/// TAKEOFF DATA ///

APT	PRWY	POAT	PWIND	PQNH	PMRTW	FLP	MAXV1	PTOW	MFPTW
CRW	23	9.0	000/00	29.93	515	20	131	450	49077

RMKS NONE

RWY OAT WIND QNH MRTW FLP MAXV1 PWR CONFIG/CONDITION

----- ACARS RUNWAYS -----

RWY	ACARS	LENGTH	PMTOW	EFP	NOTES
05	6302	491	DT H054		
15	4750	448	SPECIAL		
23	6302	491	DT H234		
33	4750	470	DT H328		

----- SPECIAL ENG FAIL TAKEOFF PROCEDURES -----

RWY	CLB VIA	REACHING	OR	TURN	FRA	HOLD
15	D11.3	HVQ 1600		LT H320	1981	

----- FLEX - DRY RWY - ROLLING - BLDS OPEN - A/I OFF -----

05	15	23	33
6302 FT	4750 FT	6302 FT	4750 FT
DT H054	SPECIAL	DT H234	DT H328
AT N1	FLP 20	AT N1	FLP 20
AT N1	FLP 20	AT N1	FLP 20
37 85.1	439O25	37 85.1	376O15
37 85.1	434F27	37 85.1	394F15
35 85.8	446O26	35 85.8	381F16
35 85.8	440F28	35 85.8	399F16
33/86.5	454O27	33 86.5	387F17
33 86.5	447F28	33 86.5	405F17
31 87.4	462O28	31 87.4	393F18
31 87.4	454F30	31 87.4	412F18
29 88.0	468O29	29 88.0	399F18
29 88.0	460F31	29 88.0	418F19
HW/10KT	9 2	11 3	12 2
14 3			
TW/10KT	-31 -7	-42 -10	-43 -9
-43 -10			
BL CL	.9 7 1	.8 3 1	.8 3 1
.8 3 1			

----- DRY RWY - ROLLING - BLDS CLSD - A/I OFF -----

05	15	23	33
OAT N1	FLAP 20	FLAP 20	FLAP 20
FLAP 20			
13 90.4	523 O 38	436 F 25	504 F 38
457 F 26			
11 90.1	524 O 38	437 F 25	505 F 38
458 F 26			
/ 09 89.8	525 O 38	/ 439 F 25	/ 507 F 38
/ 460 F 26			
07 89.5	526 O 38	440 F 26	509 F 38
461 F 26			
05 89.2	526 O 38	442 F 26	510 F 39
463 F 27			
HW/10KT	10 2	16 3	14 2
15 3			
TW/10KT	-44 -9	-46 -10	-48 -10
-47 -11			
STATIC	0 0	7 2	7 1
9 2			
BL OP	.0 -1	0 0	0 0
0 0			
EAI	.0 -8	-1 -5	-1 -6
-6 -1			
EWAI	.0 -8	-1 -5	-1 -6
-6 -1			

----- DRY RWY - STATIC - BLDS CLSD - A/I OFF -----

05	15	23	33
OAT N1	FLAP 20	FLAP 20	FLAP 20
FLAP 20			
13 90.4	523 O 38	445 F 27	512 F 39
467 F 27			

**PSA DEP/DEST/ALT TAFS----- FLT 2495 CRW-CLT
KCRW 191738Z 1918/2018 25005KT P6SM OVC018
TEMPO 1918/1921 SCT025
FM192100 27007KT P6SM OVC015
FM200400 00000KT 4SM BR OVC008

KCLT 191720Z 1918/2018 21004KT P6SM SKC
FM200000 22003KT P6SM BKN250
FM201500 21005KT P6SM BKN150

**PSA - SIGMET----- FLT 2495 CRW-CLT
SIGE
MKCE WST 191855
CONVECTIVE SIGMET...NONE
OUTLOOK VALID 192055-200055
TS ARE NOT EXPD TO REQUIRE WST ISSUANCES.

SIGC
MKCC WST 191855
CONVECTIVE SIGMET...NONE
OUTLOOK VALID 192055-200055
TS ARE NOT EXPD TO REQUIRE WST ISSUANCES.

E G NIL

C G NIL

**PSA FDC NOTAMS----- FLT 2495 CRW-CLT

FDC 9/3399 CRW FI/T YEAGER CHARLESTON WV. VOR/DME RNAV OR
GPS RWY 15 AMDT 2A... S-15 MDA 1560/HAT 596 ALL CATS.
FDC 0/2049 CRW FI/T YEAGER CHARLESTON WV. ILS OR LOC RWY
23 AMDT 29... ALTERNATE MINIMUMS NA.

FDC 9/1646 CLT FI/T CHARLOTTE/DOUGLAS INTL CHARLOTTE NC.
RNAV GPS RWY 5 AMDT 2... LNAV/VNAV DA 1258/HAT 542 VIS

1 1/2 ALL CATS. LNAV MDA 1220/HAT 504 VIS CAT C/D RVR
5000. VDP NA. DISREGARD NOTE FOR INOPERATIVE MALSR
INCREASE LNAV CAT D VISIBILITY TO RVR 6000. TEMPORARY
CRANE 902 MSL 4690 FEET SOUTHWEST OF RWY 36C.
FDC 9/1645 CLT FI/T CHARLOTTE/DOUGLAS INTL CHARLOTTE NC.
RNAV GPS RWY 36C AMDT 2B... LNAV/VNAV DA 1261/HAT 554

NONE ISSUED

CRW TAF AMD KCRW 191957Z 1920/2018 23005KT P6SM OVC018 TEMPO
1920/1922

SCT025

FM192200 27007KT P6SM OVC015

FM200400 00000KT 4SM BR OVC008

CLT TAF KCLT 191720Z 1918/2018 21004KT P6SM SKC

FM200000 22003KT P6SM BKN250

FM201500 21005KT P6SM BKN150

MK1 WST 191955

CONVECTIVE SIGMET...NONE

OUTLOOK VALID 192155-200155

TS ARE NOT EXPD TO REQUIRE WST ISSUANCES.

MK2 WST 191955

CONVECTIVE SIGMET...NONE

OUTLOOK VALID 192155-200155

TS ARE NOT EXPD TO REQUIRE WST ISSUANCES.

MK3 WST 191955

CONVECTIVE SIGMET 21W

VALID UNTIL 2155Z

CA AND CSTL WTRS

FROM 40NNW LAX-40SSE LAX-60S RZS-10E RZS-40NNW LAX

DMSHG AREA TS MOV FROM 25025KT. TOPS TO FL300.

CONVECTIVE SIGMET 22W

VALID UNTIL 2155Z

CA CSTL WTRS

FROM 60WNW ENI-100WSW SNS-210SW PYE-210WSW PYE-60WNW ENI

AREA EMBD TS MOV FROM 23040KT. TOPS TO FL310.

OUTLOOK VALID 192155-200155

FROM ONP-BZA-MZB-40WSW RZS-240SW SNS-210WSW PYE-130WSW ONP-
ONP

WST ISSUANCES POSS. REFER TO MOST RECENT ACUS01 KWNS FROM
STORM

PREDICTION CENTER FOR SYNOPSIS AND METEOROLOGICAL DETAILS.

DAY.DAY-AUE.DS.A..XS.DEC5
SIGN-IN COMPLETE - 20JAN
LAST SIGN-IN AT A48EEB ON 03DEC09 AT 1101A
FL2495/19JAN CRW PR«
FL2495/19JAN CRW PR ACFT
19 2039 C54986 DAY-ATS
PR
ACR N246PS FTM/BEL/OCCA
BURN 2089 00.48
RESERVE 2000 00.45
ALT/MSAP 0 00.00
HOLD 653 00.20
T/OFUEL 4742 02.10
TANKER 1234 00.38
TAXI 224 00.14
RAMP 6200
COST INDEX 12
LGW 43549
FOD 3887
RESTRICTED TO 50 PAX
AND 57 BAGS
NEW BURN NUMBERS
19 2040 C54986 DAY-ATS
PR
ACR N246PS FTM/BEL/OCCA
CAN USE INITIALS F B
AND 2039 FOR BURN NUMBERS
THANKS
19 2047 F30000 NO-AAA
PRALERT MSG SENT TO JET1 DAYDPUS
DSP 2495/19JAN CRW CLT
QU TULDDUS
.DDLXCXA 192047
AGM
FI US2495/AN N246PS
DT DDL CRW 192047 M26A
- /ACK/OCCCAN USE

19 2047 F30000 NO-AAA
PR
QU TULDDUS
.DDLXCXA 192047
AGM
FI US2495/AN N246PS
DT DDL CRW 192047 M26A

ACARS message to flight crew indicating final flight information.

FLIGHT 2495 CRW - KCLT 01/19/2010

FLT NO RLS NO TIME
2495 2 2053Z
WIND OAT C QNH
000/00 12 29.91
SECT A GTOW/CG
9 44.4/12.5
SECT B A CGO ZFW/CG
14 770 38.4/14.3
SECT C FOB
7 6000
REMARKS
NONE

KCRW 23 6302
DT H234 0
FLEX - RLNG - BL OPEN
FLEX MRTW/LIM V1 127
33 44.6/F VR 128
FLAP MTOW V2 134
20 44.6 VFTO 173
TRIM GTOW/CG FRA 1981
7.6 44.4/12.5

Submitted by

David Tew
Operations Group Chairman